and when we make experiments on dialysis of albuminous fluids the dialysate always contains less albumen than the original fluid. But curiously enough the proportion of globulin and of serum-albumen in the ascitic fluid is tolerably near that of the blood, whereas in ordinary dialysis globulin passes through more slowly and in less quantity than albumen. This shows that transudation in living tissues goes on in a different way from dialysis outside the body. In albuminuria the relation of globulin to albumen varies much, and varies greatly in the same individual at different times of the day. Improvement in the condition of the patient is always marked by a diminution in the proportion of globulin. This is generally associated, but not always, with a diminution in the total amount of albumen. The relative proportions of albumen and globulin do not depend upon histological changes in the kidney. All kinds of proportion may occur in each form of kidney disease, but the proportion is of great practical value, inasmuch as it depends upon the intensity of the morbid processes going on in the kidney. In two persons suffering from the same form of kidney disease, the condition of the one with the smaller proportion of globulin is better. The proportion of globulin to albumen in albuminuria is often many times less than in serum. This condition differs greatly from what occurs in ascitic fluid, and agrees with what occurs in artificial dialysis. We should expect that this condition would be best observed in cases of slight lesion of the glomeruli, but on the contrary it is found that in cases of congestion, where we might be apt to assume that the albumen transudes through the glomeruli, the relation of albumen to globulin is the same as in ascitic fluid. In acute and chronic nephritis the rule may be laid down that when the lesions are slight the relation of globulin to albumen agrees with that of ordinary diffusion through parchment paper, viz., that the albumen much exceeds the globulin. The greater the lesion, the more does the proportion resemble that in ascitic fluid, viz., the more nearly do the quantities of albumen and globulin become equal.—*Practitioner*, July, 1883.

Hæmato-Chyluria and Chyluria.

Though the hæmato-chyluria of tropical climates has long been known, it is only within the past fifteen years that its parasitic origin has been demonstrated. WUCHERER first described the parasite causing hæmato-chyluria from cases observed in Brazil in 1859. He found, in the urine of a woman, a microscopic worm with a very fine, tail-like appendage, a blunt head with a central point, and a transparent, granular-like body; its diameter was equal to that of a leucocyte, its length being sixty or seventy times as great. In 1870, Crevaux observed, at Guadaloupe, a nematode worm 265 mm. long, and .01 mm. wide, having all the characteristics of Wucherer's parasite. It was very active, its progress was rapid, and its contorsions energetic.

Lewis found the embryos of this parasite in the urine of a score of chylurics in India, and in the blood a filaria to which he gave the name *filaria sanguinis hominis*. It was, then, established that hæmato-chyluria of tropical countries coincided with the presence of a particular nematode in the blood. Recent researches have confirmed this view. Mr. Spencer Cobbold has also found a parasite in a specimen of blood sent to him from Australia, and proposed to call it the *filaria Bancrofti*. It is certain, however, that Bancroft's description is that of a worm as thick as a hair, and three or four inches long; being altogether different from the parasite described by Wucherer and Crevaux. The *distoma hæmatobium* of Bilharz and Harley differs also from the filaria which Damaschins found in a Zanzibar negro. This man had intermittent attacks of milky urine containing fat in emulsion, fibrine, red and white blood globules. He was an hæmato-chyluric. In his urine were found embryos analogous to those contained in the stomach of mosquitoes which had bitten hæmato-chyluric patients. He also discovered in his blood, but only at night, the true filaria of Wucherer and Crevaux. When the urine ceased to be chylous, the filariæ were not found in the blood.

Dr. Stephen Mackenzie has observed a remarkable case of which he subsequently made a post-mortem examination. A soldier, born at Madras, of European parentage, found, after arriving in England, that his urine was more abundant, turbid, slimy, and by degrees quite milky. Later he was seized with violent pain extending from the left loin to the testicle. The urine averaged 120 ounces per diem, sp. gr. about 1010, reaction neutral or faintly alkaline, no sugar, a little albumen. Urea 6 per cent. Ether readily removed the milky colour. The blood at night contained numerous filariæ, the maximum being reached at midnight. None were found during the day. By inverting the order of his life, sleeping during the day, and being awake at night, the filariæ attained their maximum at noon. Symptoms of pneumonia developed at the left apex, followed by abscesses at the root of the neck and left shoulder joint. These were opened; from this time the urine ceased to be milky, and the filariæ disappeared. The patient finally died of right empyema. The kidneys were slightly enlarged, and in the early stage of suppurative nephritis. The mucous membrane of the bladder was thickened, covered with mucus, and contained extravasations. The abdominal lymphatics were greatly dilated. The thoracic duct was dilated below and obliterated above. The lymphatics of the left kidney were dilated and contained calculi. No trace of the parent worm was found; nor any communication between the dilated lymphatics and the urinary passages. Hæmato-chyluria of tropical climates is endemic in Brazil, the Bourbon Islands, the Island of Mauritius, in India, Australia, and other places. Its course is more or less irregular, during which the urine is sometimes sanguinolent, sometimes milky.

Chyluria may last for several years without gravely compromising the health. Crevaux cured a case by administering copaiba, and Wortabet has cured the hæmaturia, as seen in Egypt, by spirits of turpentine. The balsams seem to be indicated. Sometimes the disease is cured spontaneously, or under the influence of an acute intercurrent disease. No reason can be assigned for the fact that the filariæ only appear in the blood during the night.

All cases of chyluria are not parasitic. Gubler has described cases of oily urine, and Robin thinks that the chyluria of our climate is only an exaggeration of what Gubler describes. It differs from hæmato-chyluria by the absence of filariæ and hæmaturia.—*Progrès Méd.*, July 14, 1883.

Treatment of Leprosy.

The treatment which SURGEON-MAJOR PETERS has adopted at the Leper Asylum at Belgaum, during the last two years, consists, he says, of: 1. *Local applications.*—The patient was made to rub carbolic acid and sweet oil (1 in 40), early in the morning for a couple of hours, all over the body, and then bathe at about 9 A.M. with soap and warm water; afterwards to rub in an emulsion of gurjon oil made according to Dr. Dougall's formula (viz., gurjon oil 1 part, lime-water 3 parts, churned well together so as to form a thin ointment of a creamy consistence) over the affected parts, and fill in the ulcerations with cotton-wool smeared with the emulsion.

The ulcers healed rapidly, even such as had remained open for several years, but the anæsthetic parts and tubercles remained much the same; and except in one or two instances, where it was alleged by the patients that the tubercles were